

Abstract

Title: The balance assessed in the martial art of Taekwondo

Objectives: The main objective of this thesis is to evaluate balance in probands, regularly dealing martial art of taekwondo and compare it with the general population, which regularly pays no sports activity and does not currently have any experience in martial arts.

Methods: This is a pilot study, which was attended by 16 probands, the results were processed quantitatively. The probands of both groups were in the age range 20-38 years, composed of 4 women and 12 - men. The first group consisted of eight coaches, students, holders of black belt, or representatives, dealing regularly martial art of Taekwondo WTF for ten years or more. It was composed of individuals from the clubs Gladiator Dojang, Hirundo and SK Cobra Dojang. The control group accounted for eight individuals with no regular sports activities that have experience with any type of martial arts. The data acquisition was first utilized clinical examination, containing basic kinesiology testing. This was followed by measuring instrument, which was held with Smart Equitest system from Neurocom. Measured data were initially processed by the program Neurocom Balance Manager software. Subsequently, it was the most frequently used tests and Unilateral Sensory Organization Test Stance, statistical evaluation. To which was used Microsoft Excel 2016 for calculating the monitored values, the program ControlFreak to evaluate the normality of the test input data and subsequent hypothesis testing dvouvýběrovým unpaired t - test.

Results: From a statistical processing it is obvious that it is impossible to say that the group of taekwondo instructor had, on average, significantly better than the control group.

Keywords: Taekwondo WTF, balance, postural stability, dynamic computed posturography